

## UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS: WELL LOG \_\_\_\_\_ ELECTRIC LOGS \_\_\_\_\_ FILE ☒ WATER SANDS \_\_\_\_\_ LOCATION INSPECTED GAS SUB. REPORT/abd \_\_\_\_\_

DATE FILED 3-15-82

LAND: FEE &amp; PATENTED

STATE LEASE NO.

PUBLIC LEASE NO.

U-25888

INDIAN

DRILLING APPROVED: 4-6-82

SPUDDED IN:

COMPLETED:

PUT TO PRODUCING:

INITIAL PRODUCTION:

GRAVITY A.P.I.

GOR:

PRODUCING ZONES:

TOTAL DEPTH:

WELL ELEVATION:

DATE ABANDONED:

8-18-83 LA well never drilledFIELD: ~~UNDESIGNATED 3/4-6~~ BAR X 3-80

UNIT:

COUNTY: GRANDWELL NO. HAYS USA #1-5API NO. 43-019-30941LOCATION 2477

FT. FROM (N) LINE.

627

FT. FROM (S) LINE.

SW NW1/4 - 1/4 SEC. 1

TWP.

RGE.

SEC.

OPERATOR

TWP.

RGE.

SEC.

OPERATOR

17S25E1TENNECO OIL COMAPMY

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

5. Lease Designation and Serial No.

U-25888

6. If Indian, Allottee or Tribe Name

## APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL ☒DEEPEN ☐PLUG BACK ☐

b. Type of Well

Oil  
Well ☐Gas  
Well ☒

Other

Single  
Zone ☒Multiple  
Zone ☐

2. Name of Operator

Tenneco Oil Company

3. Address of Operator

P.O. Box 3249 Englewood, CO 80155

4. Location of Well (Report location clearly and in accordance with any State requirements.\*)  
At surface

2477' FNL 627' FWL

At proposed prod. zone

same as above

S W N W

7. Unit Agreement Name

8. Farm or Lease Name

Hays USA

9. Well No.

1-5

10. Field and Pool, or Wildcat

~~San Arroyo~~ Undesignated11. Sec., T., R., M., or Blk.  
and Survey or Area

Sec. 1, T17S R25E

12. County or Parrish 13. State

Grand

Utah

14. Distance in miles and direction from nearest town or post office\*

20 miles NNW of Mack, Colorado

15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drlg. line, if any)

627'

16. No. of acres in lease

263.52

17. No. of acres assigned  
to this well

251.78

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
or applied for, on this lease, ft.

19. Proposed depth

4140' *Just West*

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

5499' ground

22. Approx. date work will start\*

March 1982

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	9-5/8"	36#	+ 250'	Circ cmt to surface
7-7/8"	4-1/2"	11.6#	+ 4140'	Circ sufficient volume to cover productive zones

The gas is dedicated

See attached drilling procedures

RECEIVED

MAR 15 1982

APPROVED BY THE STATE  
OF UTAH DIVISION OF  
OIL, GAS, AND MINING  
DATE: 4/16/82  
BY: [Signature]DIVISION OF  
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed

Don H. Morrison  
Don H. MorrisonTitle Production AnalystDate 3/9/82

(This space for Federal or State office use)

Permit No. \_\_\_\_\_

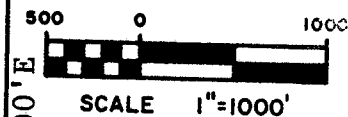
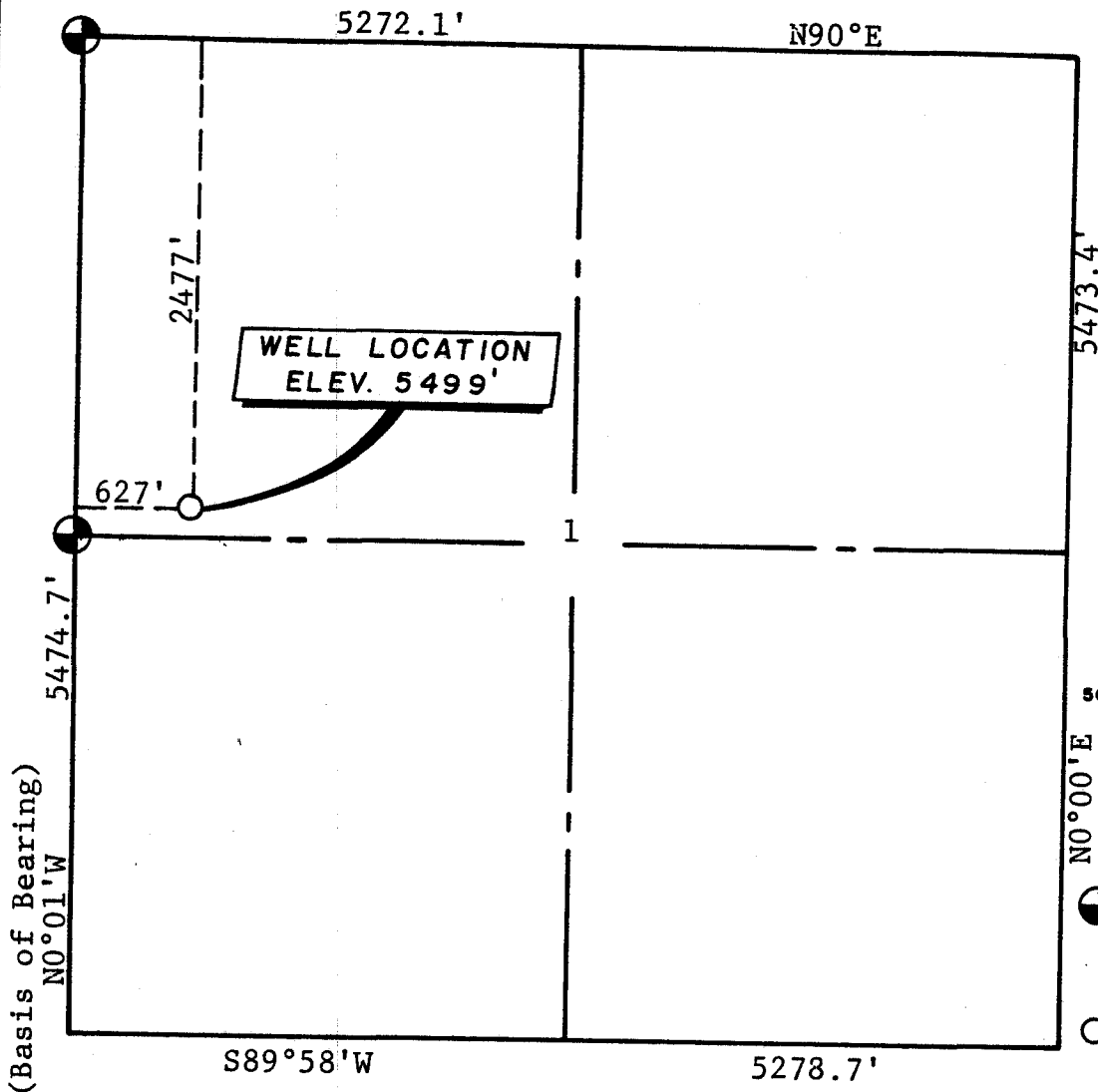
Approval Date \_\_\_\_\_

Approved by \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Conditions of approval, if any:

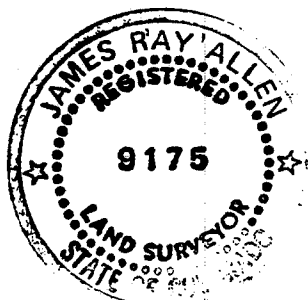


#### LEGEND

- Found USGLO Brass Cap 1924
- WELL LOCATION

#### WELL LOCATION

2477' S.N.L. - 627' E.W.L.  
 Sec. 1, T17S, R25E, S.L.B.M.  
 Grand County, Utah

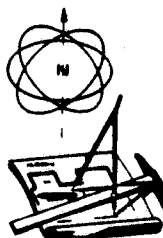


#### SURVEYOR'S CERTIFICATE

I, James R. Allen, a registered land surveyor in the State of Colorado, do hereby certify that this survey was made under my direct supervision and that this plat represents said survey.

*James R. Allen* 12/16/81  
 James R. Allen Colo. LS 9175

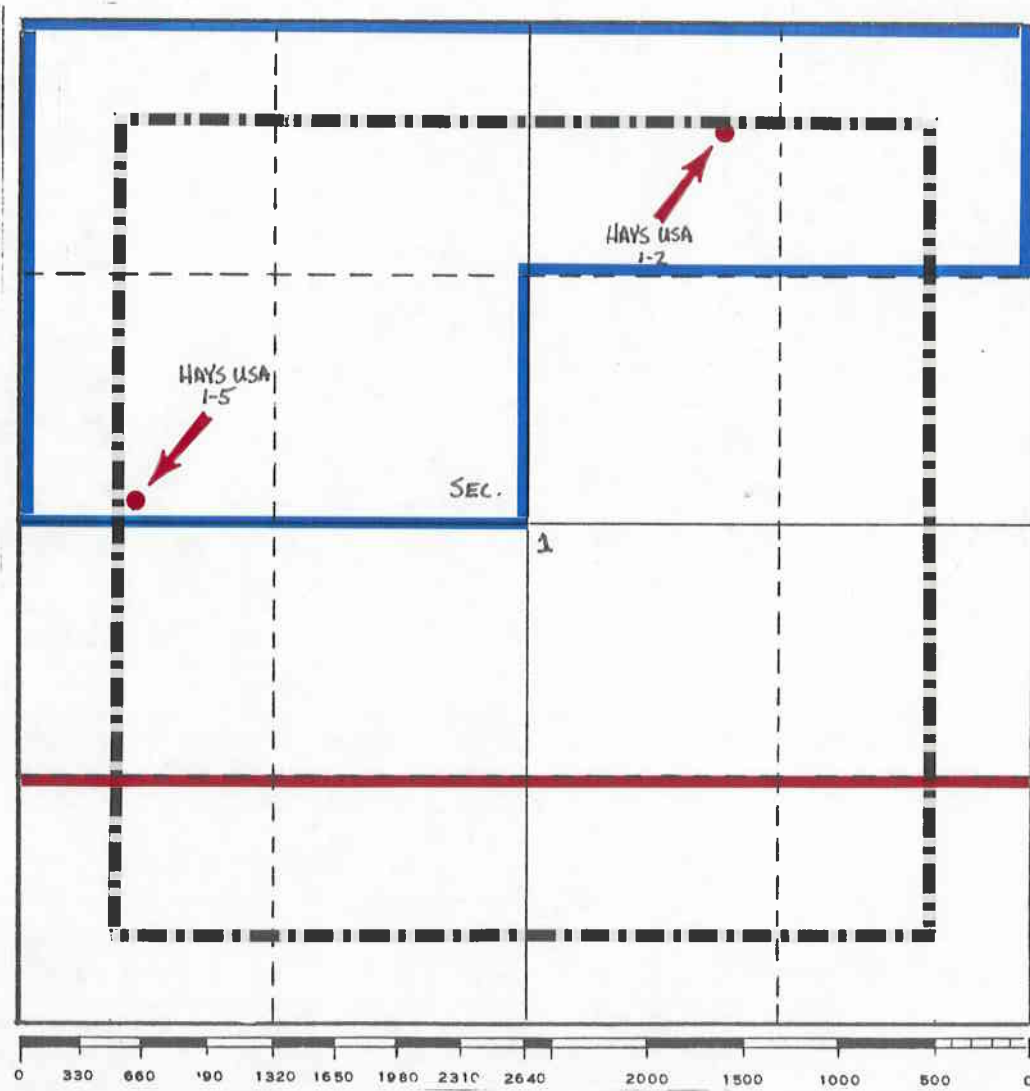
Utah - Title 58 Chapter 22-21 (b) Utah LS Pending



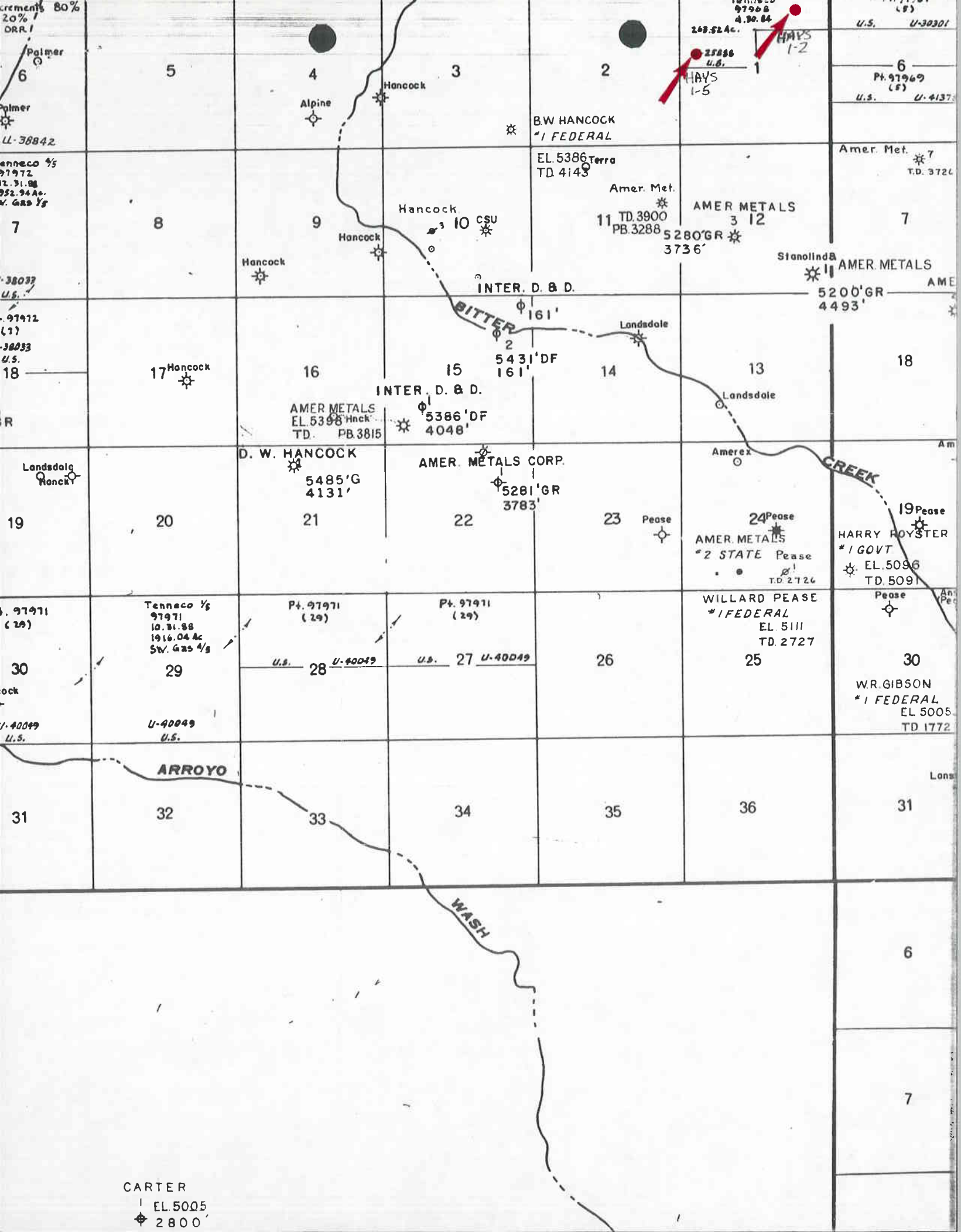
<b>ARMSTRONG ASSOCIATES, INC.</b> ENGINEERS • SURVEYS • U.S. MINERAL SURVEYORS 861 Rood Avenue-Grand Junction, Colorado 81501-(303) 245-3861		
SCALE 1"=1000'	Tenneco Oil Hays 1-5	
DATE 11-27-81		
DRAWN BY JJH	FIGURE 1	
CHECKED BY <i>H</i>		
DATE OF SURVEY 11-24-81	JOB NUMBER 813692	

- = 500' INNER BOUNDARY LINES
- = NORTHERN BAR-X UNIT BOUNDARY
- = TENNECO'S ACREAGE WITHIN SECTION

17 S



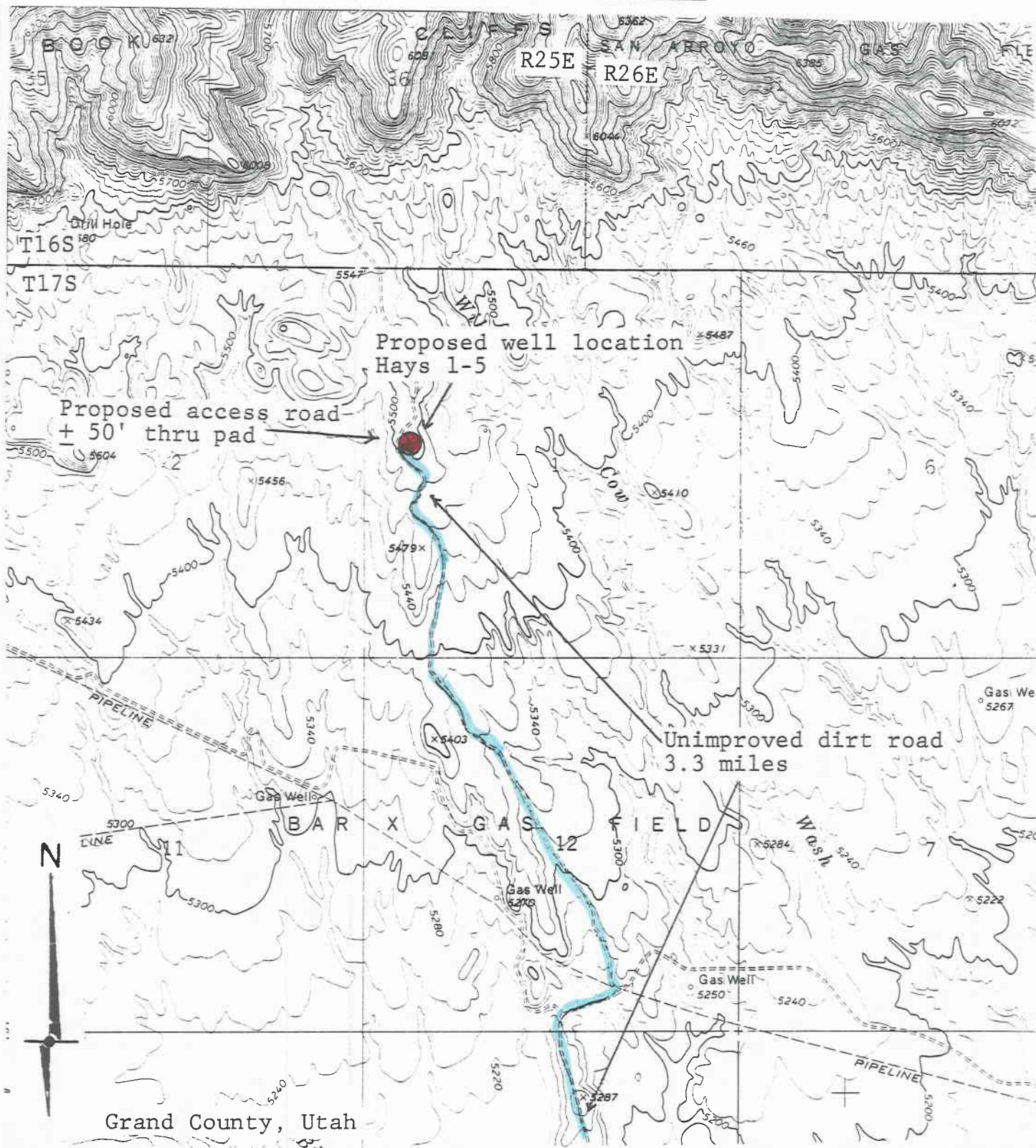
24 E



CARTER  
| EL. 5005  
◆ 2800'

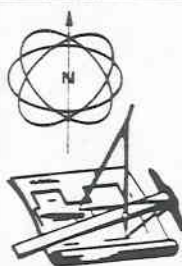


# PLANNED ACCESS ROADS



Grand County, Utah

From:  
Bar X Wash Quad  
U.S.G.S. 7.5 min. series  
Grand County, Utah  
1970



ARMSTRONG ENGINEERS and ASSOCIATES, INC.  
ENGINEERING • SURVEYING • SOILS AND CONCRETE TESTING  
861 ROOD AVENUE - GRAND JUNCTION, COLORADO 81501 - (303) 245-3861

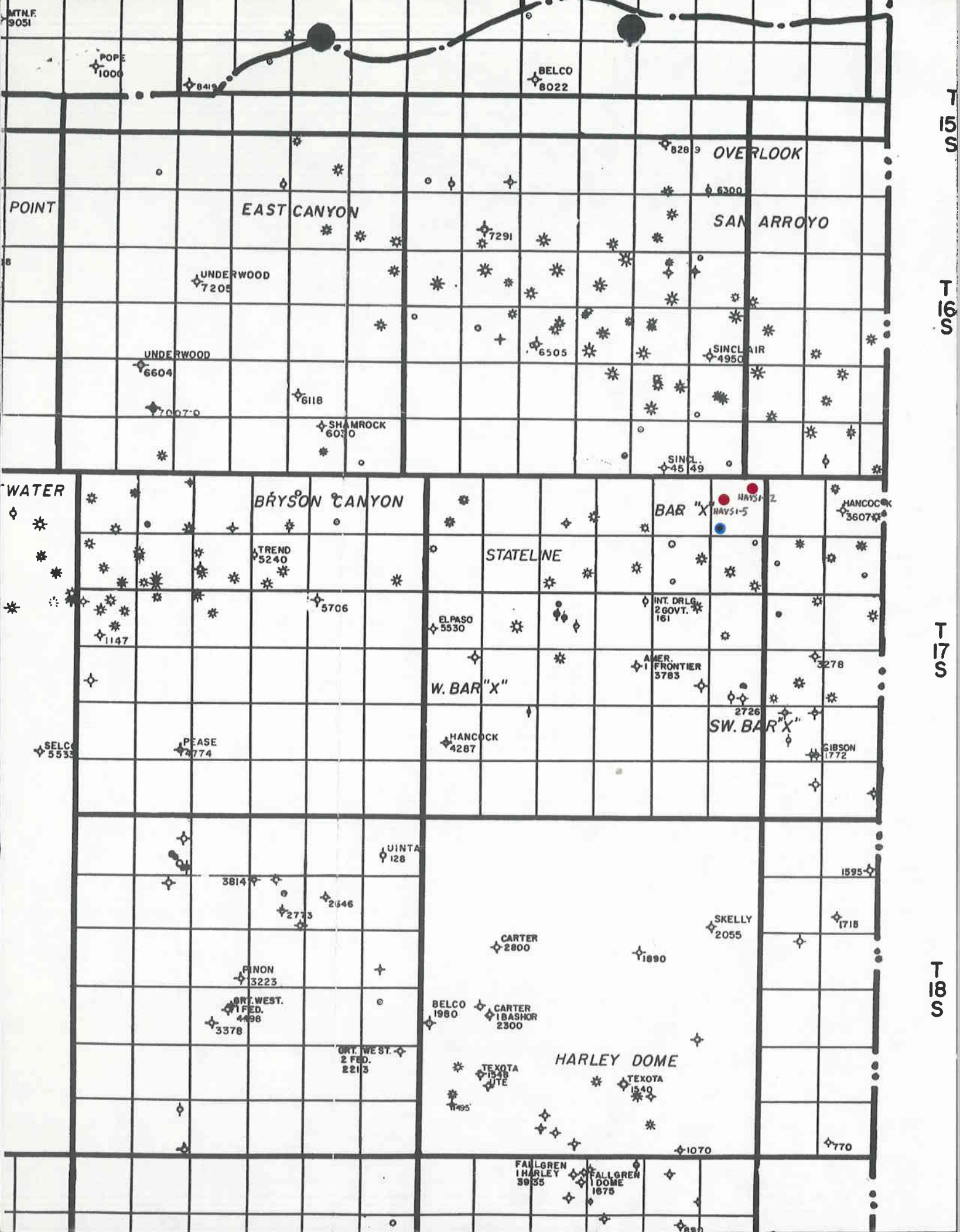
SCALE  
1"=2000'  
DATE  
11/30/81  
DRAWN BY  
LWW  
CHECKED BY  
JRA  
DATE  
11/24/81

Tenneco Oil Co.  
Hays 1-5

FIGURE 4

JOB NUMBER  
813692





\*\* FILE NOTATIONS \*\*

DATE: 3-16-82

OPERATOR: Seamco Oil Co.

WELL NO: Hays USH 1-5

Location: Sec. 1 T. 17S R. 25E County: Grand

File Prepared: ☒

Entered on N.I.D: ☒

Card Indexed: ☒

Completion Sheet: ☒

API Number 43-019-30941

CHECKED BY:

Petroleum Engineer: \_\_\_\_\_

Director: OK vs per Rule C-3(c)

Administrative Aide: As per Rule C-3(c)  
Too close to other gas well.

APPROVAL LETTER:

Bond Required: ☐

Survey Plat Required: ☐

Order No. \_\_\_\_\_

O.K. Rule C-3 ☐

Rule C-3(c), Topographic Exception - company owns or controls acreage within a 660' radius of proposed site ☐

Lease Designation Sub.

Plotted on Map ☐

Approval Letter Written ☐

Hot Line ☒

P.I. ☒



# Tenneco Oil Exploration and Production

A Tenneco Company

Western Rocky Mountain Division

P.O. Box 3249  
Englewood, Colorado 80155  
(303) 740-4800

Delivery Address:  
6061 South Willow Drive  
Englewood, Colorado

March 17, 1982



**RECEIVED**

MAR 22 1982

**DIVISION OF  
OIL, GAS & MINING**

State of Utah  
Division of Oil, Gas and Mining  
1588 West North Temple  
Salt Lake City, UT 84116

Attn: Clean B. Feight

RE: Exception of Spacing Requirements  
to Hays USA 1-5, SW/NW Sec. 1, T17S  
R25E, Grand County, UT

Dear Sir:

Pursuant to Rule C-3, c. 1 and 2 of the State of Utah Regulations and Rules of the Oil and Gas Conservation Act, Tenneco hereby applies for an exception to the spacing requirements for the above referenced well.

Due to geological reasons, e.g., the proximity of a producing gas well in the SW/SW quarter and other drainage factors, this location is less than the required 4960' from another proposed location, the Hays USA 1-2, NW/NW Sec. 1, T17S R25E, Grand County, Utah.

Enclosed find a topographic sheet and lease ownership map indicating that Tenneco is the owner of all oil and gas leases within 660' of proposed location.

Please let us know at your earliest convenience the status of this request.

Yours truly,

TENNECO OIL COMPANY

*Don H. Morrison*

Don H. Morrison  
Production Analyst

DHM:jt

cc: Minerals Management Service  
Salt Lake City

# Tenneco Oil Exploration and Production

A Tenneco Company

Western Rocky Mountain Division

P.O. Box 3249  
Englewood, Colorado 80155  
(303) 740-4800

Delivery Address:  
6061 South Willow Drive  
Englewood, Colorado

April 1, 1982

**RECEIVED**  
APR 06 1982

**DIVISION OF  
OIL, GAS & MINING**

State of Utah Natural Resources and Energy  
Division of Oil, Gas and Mining  
1636 West North Temple  
Salt Lake City, UT 84111

Attn: Cleon B. Feight

RE: Spacing Requirements for the  
Hays USA 1-5 SW/NW  
Sec. 1, T17S R25E, Grand County  
Utah

Dear Sir:

Some information has come to light regarding the reasons for spacing the Hays USA 1-5 and Hays USA 1-2 the way we did. Please see attached drawing of Section 1.

Due to the northern boundary of the Bar X Unit, Cause #4 dated December 5, 1956, ordered an irregular spacing unit of 503.52 acres. At one time, Tenneco had wanted to establish two stand up spacing units of 251.76 acres each.

At this time, however, Tenneco respectfully requests that your office disregard the application for permit to drill the Hays USA 1-2 so that we may proceed with plans to drill the Hays USA 1-5. Please return our application as Tenneco plans at a future date to pursue the Hays USA 1-2 location.

If we can be of any additional help in this matter, please contact this office.

Very truly yours,

TENNECO OIL COMPANY

*Don H. Morrison*

Don H. Morrison  
Production Analyst

DHM:jt

Attachment

cc: MMS, Salt Lake City  
Ken Macho  
Mike Decker  
Jesse Blackmon

April 6, 1982

Tenneco Oil Company  
P. O. Box 3249  
Bagtown, Colorado. 80155

RE: Well No. Hays USA #1-5,  
Sec. 1, T. 17S, R. 25E,  
Grand County, Utah

Insofar as this office is concerned, approval to drill the above referred to gas well on said unorthodox location is hereby granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure. However, this is conditional upon the application for permit to drill the Hays USA #1-2 being withdrawn at this time.

Should you determine that it will be necessary to plug and abandon this well, you are hereby requested to immediately notify the following:

CLEON B. FEIGHT  
Office: 533-5771  
Home: 466-4455

Enclosed please find Form OGC-8-X, which is to be completed whether or not water sands (aquifers) are encountered during drilling. Your cooperation in completing this form will be appreciated.

Further, it is requested that this Division be notified within 24 hours after drilling operations commence, and that the drilling contractor and rig number be identified.

The API number assigned to this well is 43-019-30941.

Sincerely,

DIVISION OF OIL, GAS AND MINING

Cleon B. Feight  
Director

CBF/db  
CC: Minerals Management Service  
Enclosure

STATE OF UTAH  
DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN DUPLICATE\*  
(Other instructions on reverse side)

MINERALS MANAGEMENT  
SERVICE

5. Lease Description No. **U-25888**  
OIL & GAS OPERATIONS No. **U-25888**

# APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. Type of Well

Oil Well ☐

Gas Well ☒

Other ☐

Single Zone ☒

Multiple Zone ☐

2. Name of Operator

Tenneco Oil Company

3. Address of Operator

P.O. Box 3249 Englewood, CO 80155

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface

2477' FNL 627' FWL

At proposed prod. zone

same as above

14. Distance in miles and direction from nearest town or post office\*

20 miles NNW of Mack, Colorado

12. County or Parrish

Grand

13. State

Utah

15. Distance from proposed\* location to nearest property or lease line, ft.

(Also to nearest drig. line, if any)

627'

16. No. of acres in lease

263.52

17. No. of acres assigned to this well

251.78

18. Distance from proposed location\* to nearest well, drilling, completed, or applied for, on this lease, ft.

19. Proposed depth

4140'

20. Rotary or cable tools

Rotary

21. Elevations (Show whether DF, RT, GR, etc.)

5499' ground

22. Approx. date work will start\*

March 1982

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12-1/4"	9-5/8"	36#	+ 250'	Circ cmt to surface
7-7/8"	4-1/2"	11.6#	+ 4140'	Circ sufficient volume to cover productive zones

The gas is dedicated

See attached drilling procedures

RECEIVED  
MAY 24 1982

DIVISION OF  
OIL, GAS & MINING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

Signed

*Don H. Morrison*  
Don H. Morrison

Title Production Analyst

Date 3/9/82

(This space for Federal or State office use)

Permit No.

Approval Date

Approved by

*Paul Caffery*

for E. W. Guynn

Title District Oil & Gas Supervisor

Date MAY 21 1982

Conditions of approval, if any:

CONDITIONS OF APPROVAL ATTACHED  
TO OPERATOR'S COPY

NOTICE OF APPROVAL

\*See Instructions On Reverse Side

FLARING OR VENTING OF  
GAS IS SUBJECT TO NTL 4-A  
DATED 1/1/80

*I state O & G*

United States Department of the Interior  
Minerals Management Service  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104-3884

NEPA CATEGORICAL EXCLUSION REVIEW

PROJECT IDENTIFICATION

Operator Tenneco Oil Company  
Project Type Gas-well-Development  
Project Location 2477 FNL 627 FNL Sec 1 T17S R25E  
Well No. #1-5 Lease No. U-25888  
Date Project Submitted 3-11-82

MINERALS MANAGEMENT  
SERVICE  
OIL & GAS OPERATIONS  
RECEIVED  
MAY 17 1982  
SALT LAKE CITY, UTAH

FIELD INSPECTION Date 5-5-82

Field Inspection  
Participants Craig Hansen mms-dermk  
Clara Duncan Blm-moab  
Kevin Cleary  
Don Morrison Tenneco Oil  
Gary Clark " "  
Dallas Galley Galleyconst

I have reviewed the proposal in accordance with the categorical exclusion review guidelines. This proposal would not involve any significant effects and, therefore, does not represent an exception to the categorical exclusions.

5-7-82  
Date Prepared

Craig Hansen  
Environmental Scientist

I concur

MAY 17 1982  
Date

W. P. Martin  
District Supervisor  
FOR E. W. GUYNN  
DISTRICT OIL & GAS SUPERVISOR



CATEGORICAL EXCLUSION REVIEW INFORMATION SOURCE

Criteria DM 2.3.A	Federal/State Agency			Local and private correspondence (date)	Previous NEPA	Other studies and reports	Staff expertise	Onsite inspection (date)	Other
	Corre- spondence (date)	Phone check (date)	Meeting (date)						
Public health and safety	B/m 5-13-82 1						2	5-5-82 24,6	
Unique charac- teristics	1						2	24,6	
Environmentally controversial	1						2	24,6	
Determine and unknown risks	1						2	24,6	
Establishes precedents	1						2	24,6	
Cumulatively significant	1						2	24,6	
National Register historic places	1								
Endangered/ threatened species	1								
Violate Federal, State, local, tribal law	1								

Recommended Specifications for Temporary  
#1-5 Hays.

1. Production facilities will be required to  
blend in with the natural surroundings.
2. Operator will adhere to BLM Surface  
Specifications.
3. 1' of Topsoil will be spread on the  
East Edge of the location to insure  
Rehabilitation efforts.
4. Trash Cages will be used instead of  
refuse pit.
5. Trees will be cut and piled on the  
East Edge of the location.
6. Access will be maintained on the  
West Edge of the location, to allow  
thru travel to other locations.

## CATEGORICAL EXCLUSION REVIEW COMMON REFERENCE LEGEND

1. Surface Management Agency Input
2. Reviews Reports, or information received from Geological Survey  
(Conservation Division, Geological Division, Water Resource Division,  
Topographic Division)
3. Lease Stipulations/Terms
4. Application Permit to Drill
5. Operator Correspondence
6. Field Observation
7. Private Rehabilitation Agreement



# United States Department of the Interior

MINERALS MANAGEMENT  
OIL & GAS OPERATIONS  
RECEIVED

BUREAU OF LAND MANAGEMENT

Moab District  
Grand Resource Area  
P.O. Box M  
Moab, Utah 84532

MAY 17 1982

SALT LAKE CITY, UTAH

IN REPLY REFER TO

3109  
(U-50133)  
(U-068)

MAY 11 1982

## Memorandum

To: Minerals Management Service  
P.O. Box 1037  
Vernal, UT 84078

From: Area Manager, Grand

Subject: Tenneco Oil Company (APD)  
Hays USA 1-5; Lease U-50133  
SW/NW Sec. 1, T. 17 S., R. 25 E., SLB&M  
Grand County, UT



On May 6, 1982 a representative from this office met with Cody Hansen, MMS, and Don H. Morrison agent of the Tenneco Oil Company for an inspection of the above referenced location. Subject to the attached conditions and written approval from MMS, I am approving the surface management portion of the Application for Permit to Drill.

The archaeological requirement has been fulfilled on this location. No threatened or endangered flora or fauna are indicated in the area.

Please forward the enclosed information to Tenneco Oil Company.

Enclosures (3)  
1-Reclamation Procedure  
2-Seed Mixture  
3-Suggested Colors - Production Facilities

Company: Tenneco Oil Co.  
Well: Hays USA 1-5  
Section: 1, T. 17 S., R. 25 E.

ADDITIONS TO THE MULTIPOINT  
SURFACE USE PLAN  
AND  
RECLAMATION PROCEDURES

CONSTRUCTION:

1. The operator or his contractor will contact the Grand Resource Area Office in Moab, Utah (phone (801) 259-6111) 48 hours prior to beginning any work on public land.
2. The dirt contractor will be furnished with an approved copy of the surface use plan and any additional BLM stipulations prior to any work.
3. Use of water from sources such as wells, springs, streams or stock ponds for activities associated with this well will be approved, prior to use, by the agency or individual holding the water right.
4. If subsurface cultural material is exposed during construction, work in that spot will stop immediately and the Grand Resource Area Office will be contacted. All employees working in the area will be informed by the operator that they will be subject to prosecution if they are caught disturbing archaeological sites or picking up artifacts. Salvage or excavation of identified archaeological sites will only be done if damage occurs.
5. Improvement to the existing road will not be necessary. The total disturbed width allowed will be as is. The allowable travel surface will be as is.

New road construction will be limited to an allowable travel surface width of as is. For construction design and survey refer to Class II road standards attachment.

Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.

Surfacing material will not be placed on the access road or location without prior BLM approval.



6. Location: The pad will be constructed as designed in your 13 Point Plan. Trees (pinyon & juniper) removed from the location will be stockpiled behind the topsoils on the east side of the pad. Existing road will be used as part of the pad and will be passable by vehicle as much as possible.
7. The top 12 inches of soil material will be removed from the location and windrowed separate from the trees on the east side of the location.
8. The reserve pit will not be lined with commercial bentonite or plastic sufficient to prevent seepage. Keyway. The reserve pit banks will be 1.5 to 2.0 feet above pad and constructed in 8 inch lifts, machinery compacted, and sufficiently wide for equipment to pass over. An area 1 - 1.5 cat blades wide will be cleared to mineral soils behind the pit(s) for fire protection.

## PRODUCTION

1. The reserve pit and that portion of the location and access road not needed for production or production facilities will be reclaimed in the methods described in the rehabilitation section. All of the stockpiled topsoil will be used in reclaiming the unused areas.
2. All above-ground production facilities will be painted using the attached suggested colors.
3. The access will be to the design of a Class II road.
4. When any oil is produced that requires storage tanks be placed on the pad, they will be surrounded by 3 feet high soil berms to contain tank gallonage plus 10 per cent. The load valve will be kept inside the berm.

## REHABILITATION

1. Immediately upon completion of drilling, the location and surrounding area will be cleared of all debris resulting from the operation. All trash will be disposed of in the trash cage. Non-burnable debris will be hauled to a local town dump site.
2. The operator or his contractor will contact the Grand Resource Area BLM office in Moab, Utah, phone (801 259-6111), 48 hours prior to starting rehabilitation work that involves earthmoving equipment and upon completion of restoration measures.
3. Before any dirt work to restore the location takes place, the reserve pit must be completely dry and any trash (barrels, metal etc.) it contains must be removed from public lands.
4. All disturbed areas will be recontoured to blend as nearly as possible with the surrounding area.
5. The stockpiled topsoil will be evenly distributed over the disturbed area.
6. All disturbed areas will be scarified with the contour to a depth of 6 inches. Do not smooth pads out, leave a roughened surface.
7. Seed will be (broadcast/drilled) at a time to be specified by the BLM with the following seed prescription. When broadcast seeding, a harrow or some such implement will be dragged over the seeded area to assure seed cover. Broadcast seed will be two times the pounds/acre on the enclosed seed list.
8. Waterbars will be used on all sloping surfaces as shown below:

<u>Grade</u>	<u>Spacing</u>
2%	200 ft. spacing
2-4%	100 ft. spacing
4-5%	75 ft. spacing
+5%	50 ft. spacing

9. After seeding is complete the stockpiled trees will be scattered evenly over the disturbed areas and walked down with a dozer.

# SEED MIXTURE

Species		Rate
Grasses		lbs/ac.
Oryzopsis hymenoides	Indian rice grass	1
Hilaria jamesii	Curley grass	1
Elymus salinus	Salina wildrye	1
Forbs		
Sphaeralcea coccinea	Scarlet globemallow	1
Browse		
Atriplex canescens	Four-wing saltbush	1
Ceretoides lanata	Winterfat	1

Broadcast seed will be applied at two times the above rate.

Seed will be applied during the fall (Oct. - Dec.) of each year.



# United States Department of the Interior

IN REPLY REFER TO

## BUREAU OF LAND MANAGEMENT

### SUGGESTED COLORS TO PAINT OIL & GAS PRODUCTION FACILITIES

#### Cisco Desert and Flats below the Bookcliffs:

Dynasty Green	(Sears)
Tumbleweed	(Pratt & Lambert)
Desert Tan	-----
Sage Gray	(Pratt & Lambert)

#### Bookcliffs Region:

Sage Gray	(Pratt & Lambert)
Sea Life	(Pratt & Lambert)
Dynasty Green	(Sears)

Similar hues other than the ones mentioned above must be approved by the Grand Resource Area Manager.



## MINERALS MANAGEMENT SERVICE

MINERALS MANAGEMENT  
SERVICE  
OIL & GAS OPERATIONS  
RECEIVED

FROM: STAFF GEOLOGIST, OIL &amp; GAS, UNIT AGREEMENT SECTION, LAKEWOOD, CO

TO: DISTRICT ENGINEER, OIL &amp; GAS, GRAND JUNCTION, CO

MAR 22 1982

SUBJECT: APD MINERAL EVALUATION REPORT

SALT LAKE CITY, UTAH  
LEASE NO. U-25888OPERATOR: TENNECO OIL COMPANYWELL NO. 1-5LOCATION: 2477' FNL, 627' FWL SW 1/4 NW 1/4 sec. 1, T. 17S, R. 25E, SLM  
GRAND County, UTAH

## 1. Stratigraphy:

Estimation, tops by the operator appear reasonable, but could be 200-300' feet too deep.

## 2. Fresh Water:

Fresh/usable water will probably not be encountered in this well but Mancos sands could possibly contain water. Most of the hole will be drilled with air or air/mist.

## 3. Leasable Minerals:

None.

## 4. Potential Geologic Hazards:

None anticipated by the operator.

## 5. Additional logs Needed:

None.

## 6. References and Remarks:

\* Protect any fresh water aquifers penetrated.

Signature:

Ronald E. Gunnison

Date:

3/18/82

ESTIMATED FORMATION TOPS

Mancos	Surface	
Frontier	3149'	(Gas)
Dakota Silt	3399'	(Gas)
Dakota Sand	3493'	(Gas)
Morrison	3711'	(Gas)
Salt Wash	3936'	(Gas)
TD	4140'	

1. No abnormal pressures, temperatures or H<sub>2</sub>S is anticipated on this hole.
2. Reserve pit shall be fenced on 3 sides during drilling operations in order to comply with BLM and USGS regulations.
3. Large volume of gas may be encountered in Upper Dakota, Cedar Mountain and Salt Wash Formations.

TENNECO OIL COMPANY  
ROCKY MOUNTAIN DIVISION  
6061 S. WILLOW DRIVE  
ENGLEWOOD, COLORADO 80111

DRILLING PROCEDURE

DATE: January 4, 1982

LEASE: T.O.C. HAYS

WELL NO.: 1-5

LOCATION: 627' FWL, 2477' FNL  
Section 1, T17S, R25E  
Grand County, Utah

FIELD: San Arroyo

ELEVATION 5499'

TOTAL DEPTH: 4140'

PROJECTED HORIZON: Morrison

SUBMITTED BY: Tom Dunning

DATE: January 4, 1982

APPROVED BY: 

DATE 

CC: Administration  
Well File  
Field File

### DRILLING, CASING AND CEMENT PROGRAM

1. Set 250' of 9 5/8" casing to be used as surface casing. Cement with sufficient volume to circulate cement to the surface.
2. MIRURT
3. Nipple up casing spool, BOP's, rotating head, choke manifold. Pressure test BOP's manifold, etc. to 1000 psi for 15 minutes.
4. TIH and displace water in casing with air. Drill out shoe and dry up hole.
5. Drill 7 7/8" hole to T.D..
6. Log well as per G.E. department recommendations.
7. If well is productive, run 4 1/2", 11.6#, K-55, ST&C casing to T.D. Cement with sufficient volume to cover all possible productive zones.
8. If the well is non-productive, P & A as per Regulatory Agency specifications.

### CASING PROGRAM

SURFACE:	250'	9 5/8", 36#, K-55, ST&C
PRODUCTION:	4140'	4 1/2", 11.6#, K-55, ST&C

### MUD PROGRAM

0-250' Spud mud. Viscosity as needed to clean hole.  
250-4140' Air or Air/Mist w/ 3% KCL.

NOTE: Should the hole become wet or encounter large gas flow which require mud up, keep the weight as low as possible, vis as needed, and W.L. + 6 cc. w/ 3% KCL.

### EVALUATION

#### Cores and DST's:

NONE.

#### Deviation Surveys

0-250' Every 100' unless hole conditions prohibit running the surveys. Maximum deviation at T.D. 1 .  
250-4140' Every 500' or on trips. Maximum deviation 1 per 100' or 4 at T.D

#### Samples:

One full bag every ten feet 3000' to T.D.

#### Logs:

Surface Hole - as specified by G.E. Department

Production Hole - as specified by G.E. Department.

### BLOWOUT EQUIPMENT

1. Double ram hydraulic with pipe and blind rams operated by an accumulator.
2. Rotating head on air or air/mist holes.
3. Preventors must be checked for operation every 24 hours. This check must be recorded on the IADC Drilling Report Sheet.



## REPORTS

Drilling Reports for the past 24 hours will include depth, footage, time distribution, activity breakdown, mud properties, bit record, bottom hole assembly, daily and cumulative mud cost, deviation surveys, and other pertinent information to be called into Division Office by 7:30 AM Monday thru Friday.

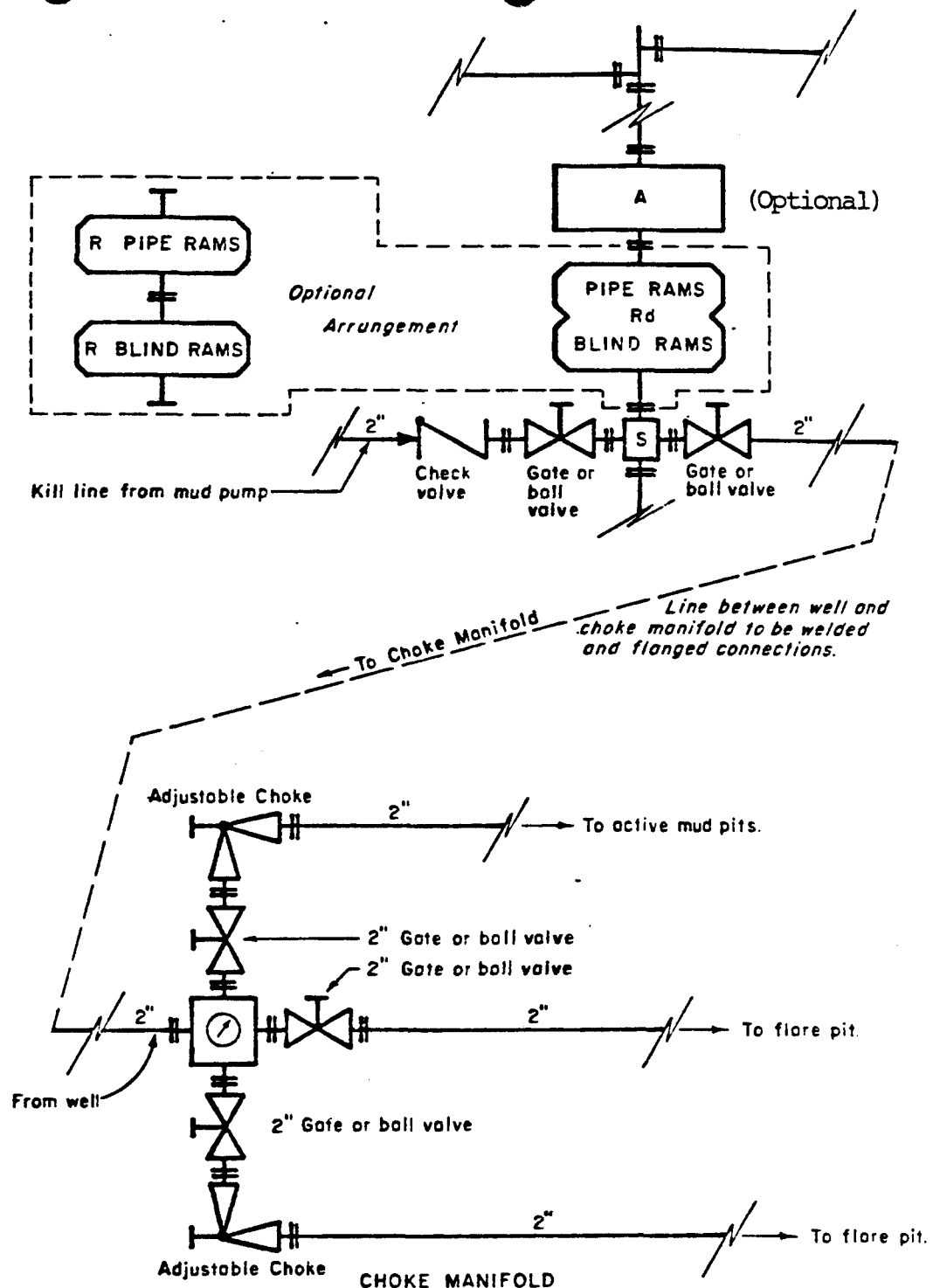
TENNECO OIL COMPANY  
P.O. Box 3249  
ENGLEWOOD, COLORADO 80155  
PHONE: 303-740-4800

## OFFICE DIRECTORY

Charles R. Jenkins	740-4800	Ext. 605
Ted McAdam	740-4800	Ext. 307
Tom Dunning	740-4813	
Dale Kardash	740-4809	

In case of emergency or after hours call the following in the preferred order.

(1)	Tom Dunning Drilling Engineer	740-4813 797-2154	Office Home
(2)	Ted McAdam Senior Drilling Engineer Specialist	740-4800 978-0724	Ext. 307 Office Home
(3)	Charles R. Jenkins Division Drilling Engineer	740-4800 989-1737	Ext. 605 Office Home
(4)	Harry Hufft Division Production Manager	771-5257	Home



All equipment to be 3,000 psi working pressure except as noted.

- Rd Double ram type preventer with two sets of rams.
- R Single ram type preventer with one set of rams.
- S Drilling spool with side outlet connections for choke and kill lines.
- A Annular type blowout preventer. (Optional)

#### ARRANGEMENT B

TENNECO OIL COMPANY  
 ROCKY MOUNTAIN DIVISION  
 REQUIRED MINIMUM  
 BLOWOUT PREVENTER AND  
 CHOKES MANIFOLD

TENNECO OIL COMPANY - 10 POINT PLAN

1. The geological name of the surface formation: Mancos
- 2 & 3. Estimated Formation Tops:  
  
(See Attached Drilling Procedure)
4. Proposed Casing Program:  
  
(See Attached Drilling Procedure)
5. Blowout Preventors:  
Hydraulic double ram. One set of rams will be provided each size drill pipe in the hole. One set of blind rams at all times. Fill line will be 2", kill line will be 2", choke relief line will be 2". BOP's, drills and tests will be recorded in the driller's log. BOP will be tested every 24 hours and recorded in IADC Log.
6. Mud Program: (Sufficient quantity of mud and weight material will be available on location).  
  
(See Attached Drilling Procedure.)
7. Auxiliary Equipment:
  - a. Kelly cock will be in use at all times.
  - b. Stabbing valve to fit drill pipe will be present on floor at all times.
  - c. Mud monitoring will be visual. No abnormal pressures are anticipated.
  - d. Floats at bits.
  - e. Drill string safety valve(s) to fit all pipe in drill string will be maintained on the rig floor while drilling operations are in progress.
8. Coring, Logging, and Testing Program:  
  
(See Attached Drilling Procedure)
9. No abnormal pressures, temperatures or potential hazards such as H<sub>2</sub>S are expected to be encountered.
10. The drilling of this well will start approximately ( March 1982 ) and continue for 10 to 12 days.

Your office will be notified of spudding in sufficient time to witness cementing operations. Immediate notice will be given on blowouts, fires, spills, and accidents involving life threatening injuries or loss of life. Prior approval will be obtained before appreciably changing drilling program or commencing plugging operations, plug back work, casing repair work or corrective cementing operations.

I. EXISTING ROADS

A. Proposed Well Site Location: See Exhibits 1 and 2

B. Planned Access Route: See Exhibits 3 and 4

C. Access Road Labelled: See Exhibit 4

Color Code: Red - ~~Improved Surface Road~~  
Blue - ~~New Access Road to be constructed~~ Improved

D. Not applicable, the proposed well is a development well.

E. The existing roads are shown in Exhibits 3 and 4

F. Existing Road Maintenance or Improvement: The existing road will not require improvement. However, this road, along with the new access road, may require occasional grading to return the road surface to a cross section necessary for proper drainage.

II. PLANNED ACCESS ROUTE

A. Route Location - See Exhibits 3 and 4 )

The planned new access route was selected to provide the shortest distance to the well site with acceptable grades from the main connector road. Temporary access will be built initially. If the facility is productive, the temporary road will be improved as follows:

1. Width: The average dirt width will be twenty feet. The average traveled surface width will be twenty feet. Road construction will be in accordance with typical roadways requested by the U. S. Bureau of Land Management.
2. Maximum Grades: Grades will be kept to a minimum using all available engineering techniques. It is, however, impossible to give a percent grade until the road has been aligned to the satisfaction of the surface management agency. We will have grades that are safe and passable under adverse weather conditions and that utilize the existing topography and surface geological conditions.

3. Turnouts: Turnouts are not required

4. Drainage Design: Prior to construction of the new access road, the brush and topsoil will be windrowed to each side of the alignment outside construction limits. The subgrade surface will be a minimum elevation of one foot above ditch grade. The road surface will be center crowned and the inslopes will have a maximum slope of 3:1 and fill slopes will be a maximum of 2:1.

5. Culverts Use, Major Cuts and Fills: Culverts will be placed as needed and suggested by the BLM.

Max: cut - 6'

Max: fill - 6'

6. Surfacing Material: The proposed permanent access road will be constructed with native material.

7. Gates, Cattleguards, Fence Cuts: Not needed.

8. New portion of road will be center flagged.

### III. LOCATION OF EXISTING WELLS

The proposed well is a development well. Exhibit A shows existing wells within a one mile radius.

- A. Water Wells: 0
- B. Abandoned Wells: 1
- C. Temporarily Abandoned Wells: 0
- D. Disposal Wells: 0
- E. Drilling Wells: 4
- F. Producing Wells: See Exhibit A
- G. Shut-In Wells: 0
- H. Injection Wells: 0
- I. Monitoring or Observation Wells: None.

### IV. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

A. Existing facilities within one mile owned or controlled by Lessee/Operator:

- 1. Tank batteries - 0
- 2. Production facilities - 0
- 3. Oil gathering lines - 0
- 4. Gas gathering lines - 0
- 5. Injection lines - 0
- 6. Disposal lines - 0

B. New facilities in the event of production:

1. New facilities: May consist of a well head, condensate tank, production unit, meter house, all of which would remain within the disturbed area. Exhibit B shows our most typical arrangement for this area.
2. Dimensions of the facilities are shown in Exhibit B and .
3. Construction will be to strip the topsoil, level drilling pad. Dehydrator pits will be constructed with soil materials native to the site. Construction methods will be employed to assume that no drainage flows are impounded to prevent the loss of any hydrocarbon from the site. This is to be done in a manner to facilitate rapid recovery and clean up.
4. Protective measures to protect wildlife and livestock: Dehydrator pits shall be overhead flagged should any hydrocarbon material be present on the surface. The dehydrator pits shall be fenced to prevent entry of livestock or wildlife.

C. Plan for rehabilitation of disturbed areas no longer need for operations after construction completed.

Upon completion of well, areas required for continued use will be graded to provide drainage and minimize erosion. Those areas not required for continued usage will be graded to provide drainage and minimize erosion. Those areas unnecessary for use will be graded to blend with the surrounding topography. Topsoil will be replaced on those areas and seeded according to BLM specifications.

V. LOCATION AND TYPE OF WATER SUPPLY

- A. The water source is to be from a legal private source.
- B. Water transportation system: Water to be hauled in trucks from an undetermined pick up point.
- C. Water wells: None.

VI. SOURCE OF CONSTRUCTION MATERIALS

- A. Materials: Construction materials will consist of soil encountered with the boundaries of the proposed site. Topsoil will be stripped to a depth of six inches and stockpiled in an area that does not interfere with operations.
- B. Land Ownership: The planned site and access roads lie on Federal land administered by the United States Department of Interior, U. S. Bureau of Land Management.

C. Materials foreign to site: N/A

D. Access road shown under Exhibit

VII. METHODS OF HANDLING WASTE MATERIALS

A. Cuttings: Will be contained within the limits of the reserve pit.

B. Drilling fluids: Will be retained in the reserve pit.

C. Produced fluids: No substantial amount of water is expected. The amount of hydrocarbon that may be produced while treating will be retained in the reserve pit. Prior to clean up operations, the hydrocarbon materials will be skimmed or removed as the situation would dictate.

D. Sewage: Sanitary facilities will consist of at least one chemical toilet and after the completion of operations, the sewage will be removed and disposed of elsewhere.

E. Garbage: A burn cage will be used to burn all flammable material. The small amount of refuse will be removed from the site and disposed of at a legal and environmentally acceptable location.

F. Clean up of well site: After drilling, the surface of the drill pad will be cleaned and graded to accommodate a completion rig. The "mouse hole" and "rat hole" will be backfilled to prevent injury and hazard for livestock. Reserve pit will be fenced until dry and it can be backfilled and restored to natural terrain.

VIII. ANCILLARY FACILITIES

None required.

IX. WELL SITE LAYOUT

A. See Exhibits - 6 and 7

1. Location of pits: 7
2. Rig Orientation: 7

B. Pits will be unlined, unless otherwise required.



X. PLANS FOR RESTORATION OF SURFACE

- A. Reserve Pit Cleanup: The pit will be fenced prior to rig release and shall be maintained until cleanup. Prior to backfill operation, any hydrocarbon material on the pit surface will be removed. The fluids and solids contained in the pit shall be backfilled with soil excavated from the site and with soil adjacent to the reserve pit. The restored surface of the reserve pit will be contoured to prevent impoundment of any drainage flows. The gradient of the surface will be maintained to prevent sudden acceleration of drainage flows which could cause continued erosion of the surface. Following backfill completion, topsoil removed from the disturbed areas will be replaced in a uniform layer. The reserve pit will be seeded per Bureau of Land Management recommendation during the appropriate season following final restoration of the site.
- B. Restoration Plans - Production Developed: The reserve pit will be backfilled and restored as described under Item A. In addition, those disturbed areas not required for production will be graded to blend with the surrounding topography. Topsoil will be placed on these areas and seeded. The portion of the drill pad required for production and turning areas will be graded to minimize erosion and provide access to production facilities under inclement conditions. Following final improvement and surfacing of that portion of new access road, the topsoil windrowed to each side of the alignment will be placed on the cut slopes. Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C.
- C. Restoration Plans - No Production Developed: Of course the reserve pit will be restored as described above. With no production developed, the entire surface disturbed by construction of the drilling pad will be restored to its natural terrain and reseeded per Bureau of Land Management requirements.

XI OTHER INFORMATION

- A. Surface Description:  
This location is situated on gently rolling hills with a southeasterly drainage. Sandy Soil. Predominant vegetation includes sage brush and native grasses.
- B. Other Surface-Use Activities: The surface is federally owned and managed by the BLM/USGS. The predominant surface use is mineral exploration and production with minimal grazing activity.
- C. Proximity of Water, Dwelling, Historical Sites:
1. Water: none
  2. Occupied Dwellings: Not existing.

3. Historical Sites: An archaeological reconnaissance has been performed for this location and report is on file with the appropriate USGS/BLM offices.

XII. OPERATOR'S REPRESENTATIVE

Field personnel who can be contacted concerning compliance of this Surface Use Plan are as follows:

Charles Jenkins  
P. O. Box 3249  
Englewood, Colorado 80155  
Phone: (303) 740-4800

Don H. Morrison  
P. O. Box 3249  
Englewood, Colorado 80155  
Phone (303) 740-4800 , ext. 328

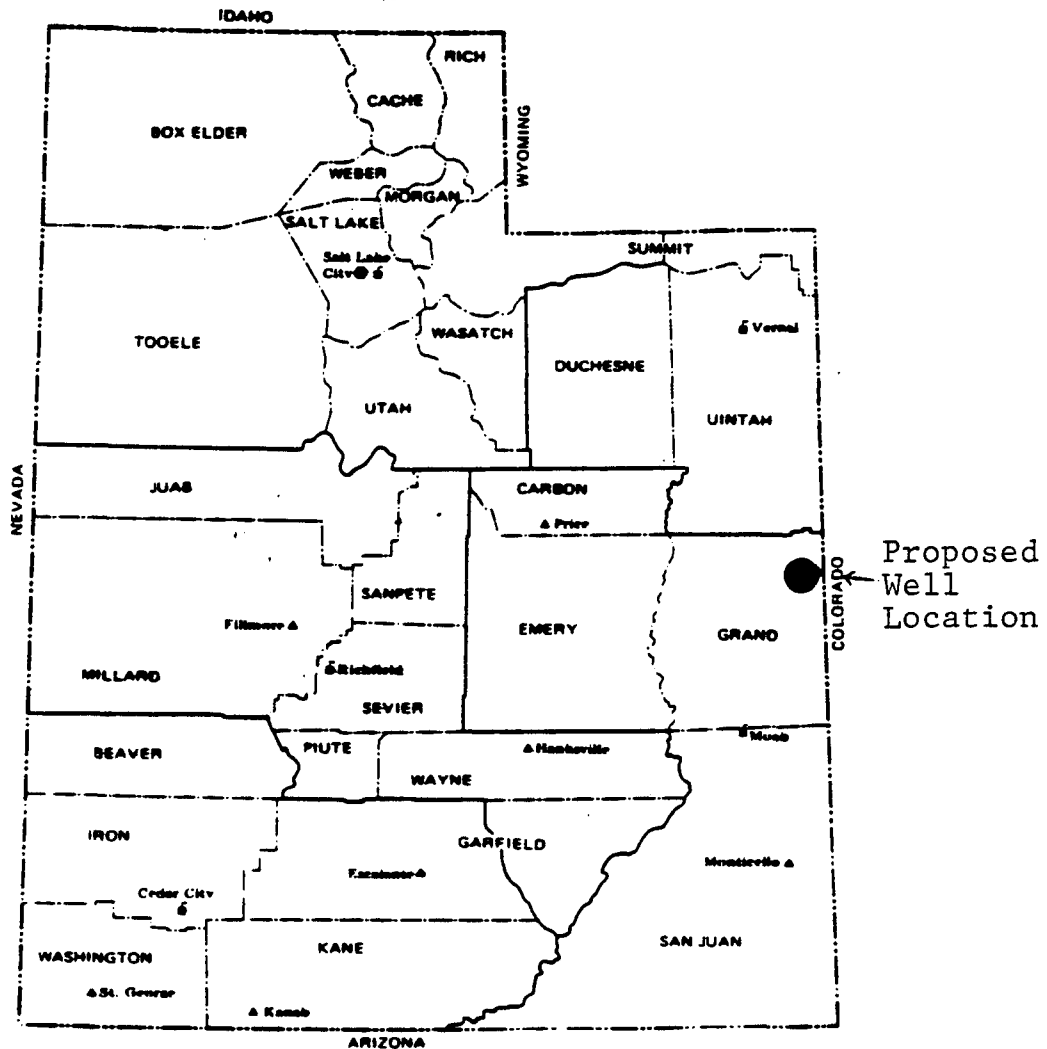
XIII. CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions as they actually exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the proposed work performed by Tenneco Oil Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

DATE: January 18, 1982

Don H. Morrison

# AREA MAP



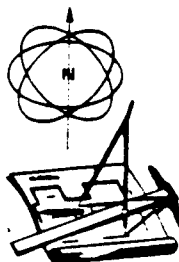
UTAH  
 Proposed Tenneco Oil Co.  
 Hays 1-5  
 NW $\frac{1}{4}$  Sec. 1, T17S, R25E, SLB&M  
 Grand County, Utah  
 Approx. 20 miles North-Northwest  
 of Mack, Colorado.



## LEGEND

- State Office
- District Office
- ▲ Area Office

— BLM District Boundaries  
 - - - County Boundaries



ARMSTRONG ENGINEERS and ASSOCIATES, INC.  
 ENGINEERING • SURVEYING • SOILS AND CONCRETE TESTING  
 861 ROOD AVENUE - GRAND JUNCTION, COLORADO 81501 - (303) 245-3861

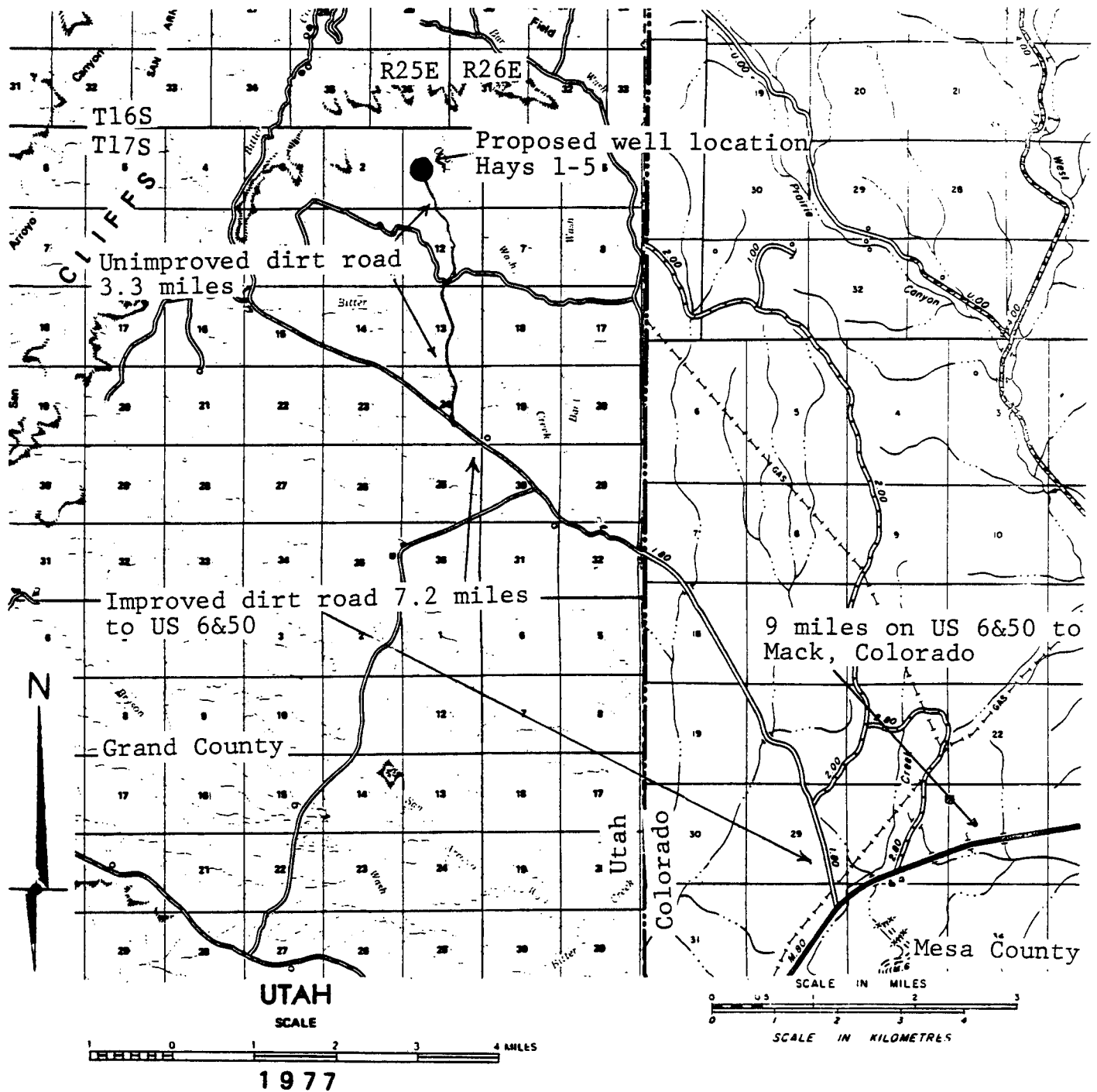
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 DATE 11/30/81  
 DRAWN BY LWJ  
 CHECKED BY JRA  
 DATE OF REVISION 11/24/81

Tenneco Oil Co.  
 Hays 1-5

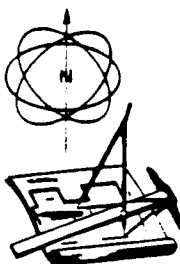
FIGURE 2

JOB NUMBER  
 813692

# EXISTING ROADS



From:  
General Hwy Map  
Sheet 4  
Grand County, Utah  
Sheet 1  
Mesa County, Colorado  
1977



ARMSTRONG ENGINEERS and ASSOCIATES, INC.  
ENGINEERING • SURVEYING • SOILS AND CONCRETE TESTING  
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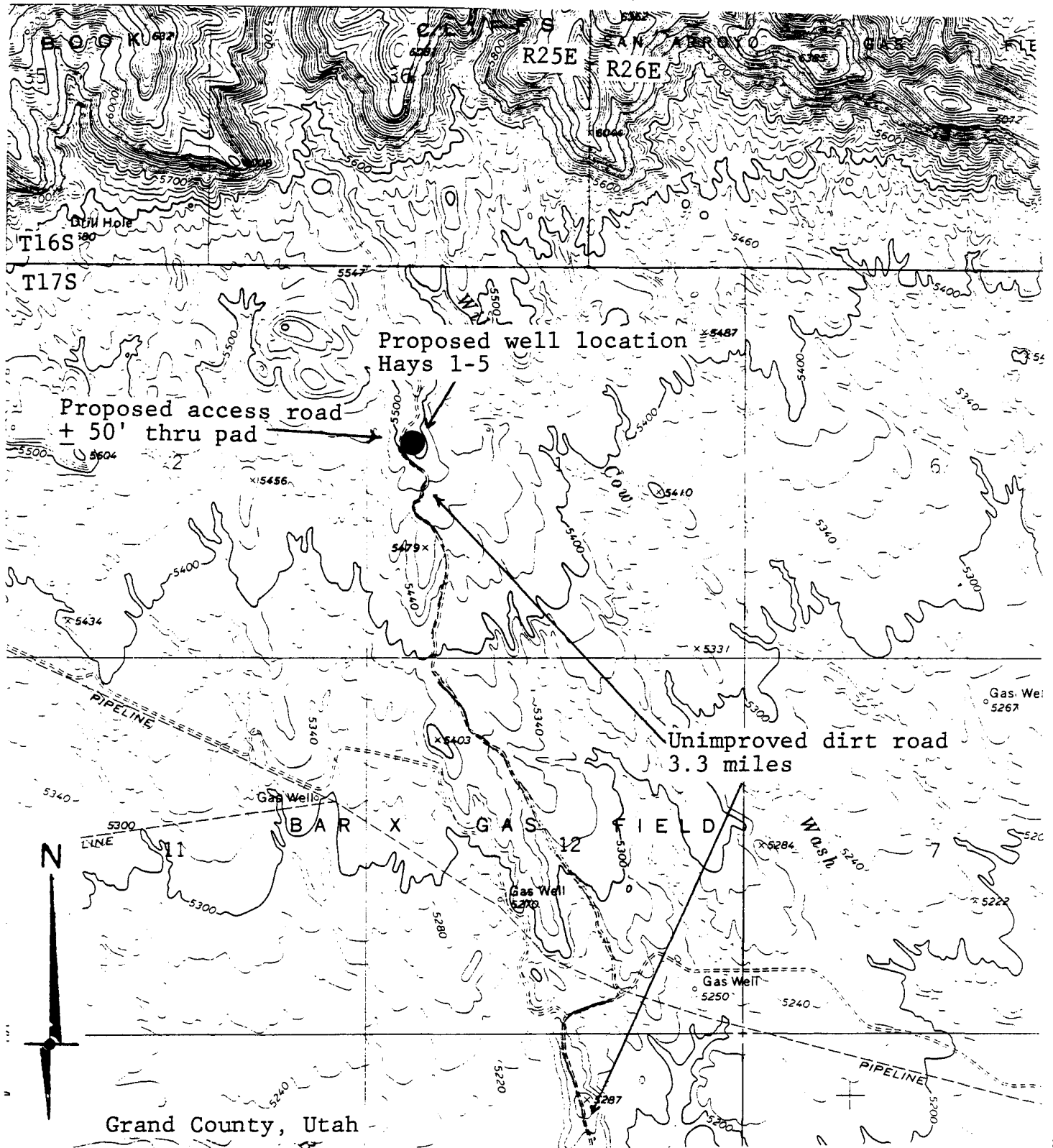
SCALE  
As shown  
11/30/81  
LWW  
JRA  
11/24/81

Tenneco Oil Co.  
Hays 1-5

FIGURE 3

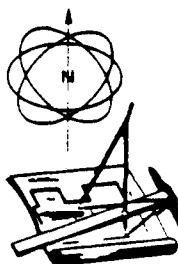
JOB NUMBER  
813692

# PLANNED ACCESS ROADS



Grand County, Utah

From:  
Bar X Wash Quad  
U.S.G.S. 7.5 min. series  
Grand County, Utah  
1970



ARMSTRONG ENGINEERS and ASSOCIATES, INC.  
ENGINEERING • SURVEYING • SOILS AND CONCRETE TESTING  
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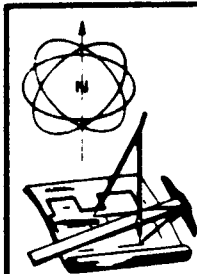
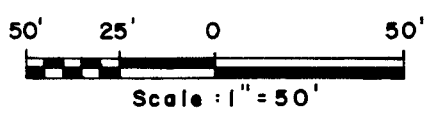
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1"=2000'  
DATE  
11/30/81  
DRAWN BY  
LWW  
CHECKED BY  
JRA  
DATE  
11/24/81

Tenneco Oil Co.  
Hays 1-5

FIGURE 4

JOB NUMBER  
813692

The site plan map displays a rectangular area with various features and survey data. At the top, two rectangular pits are shown: the "RESERVE PIT" (105' x 30') and the "FLARE PIT" (110' x 20'). A "WELL LOCATION" is marked with a circle and labeled "ELEV. 5499'". A dashed line represents an "EXISTING IMPROVED DIRT ROAD". The map includes several contour lines (5500, 5495, 5505) and survey lines (N 70°E, N 20°W, S 70°W, S 20°E). Dimensions are provided for various segments, and corner points are labeled C1 through C7. A north arrow is located in the upper right corner.

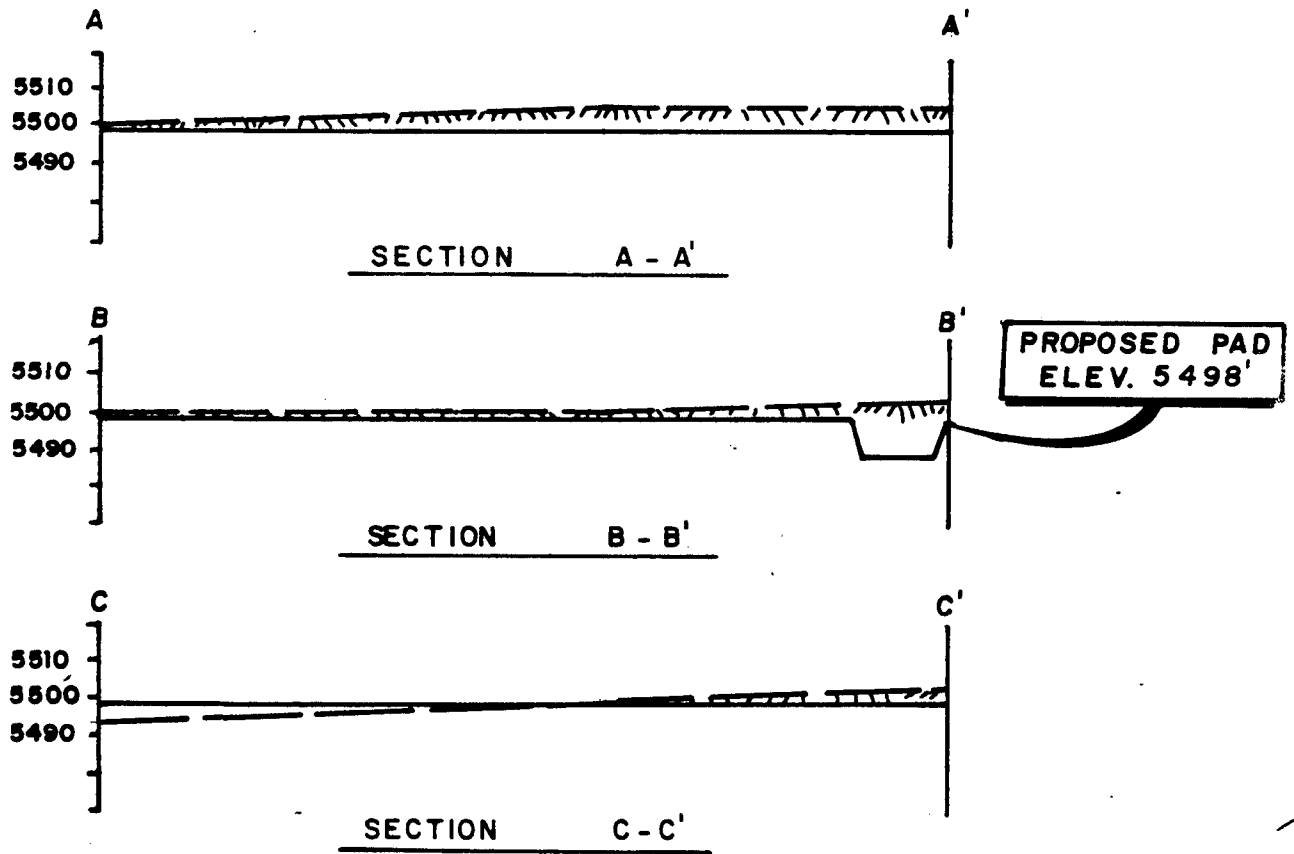


SCALE 1"=1000'  
DATE 12-16-81  
DRAWN BY E.A.G  
CHECKED BY *jt*  
DATE OF SURVEY 11-24-81

**FIGURE 5**

**JOB NUMBER**  
**813692**

# CROSS SECTIONS



**ARMSTRONG ENGINEERS and ASSOCIATES, INC.**  
ENGINEERING • SURVEYING • SOILS AND CONCRETE TESTING  
851 BOOB AVENUE - GRAND JUNCTION, COLORADO 81501 - (303) 245-3851

1" = 50'

12-16-81

E. A. G.

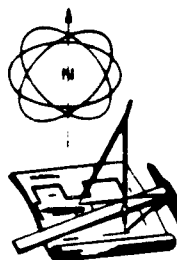
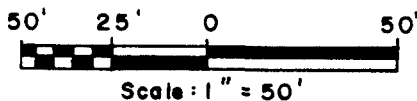
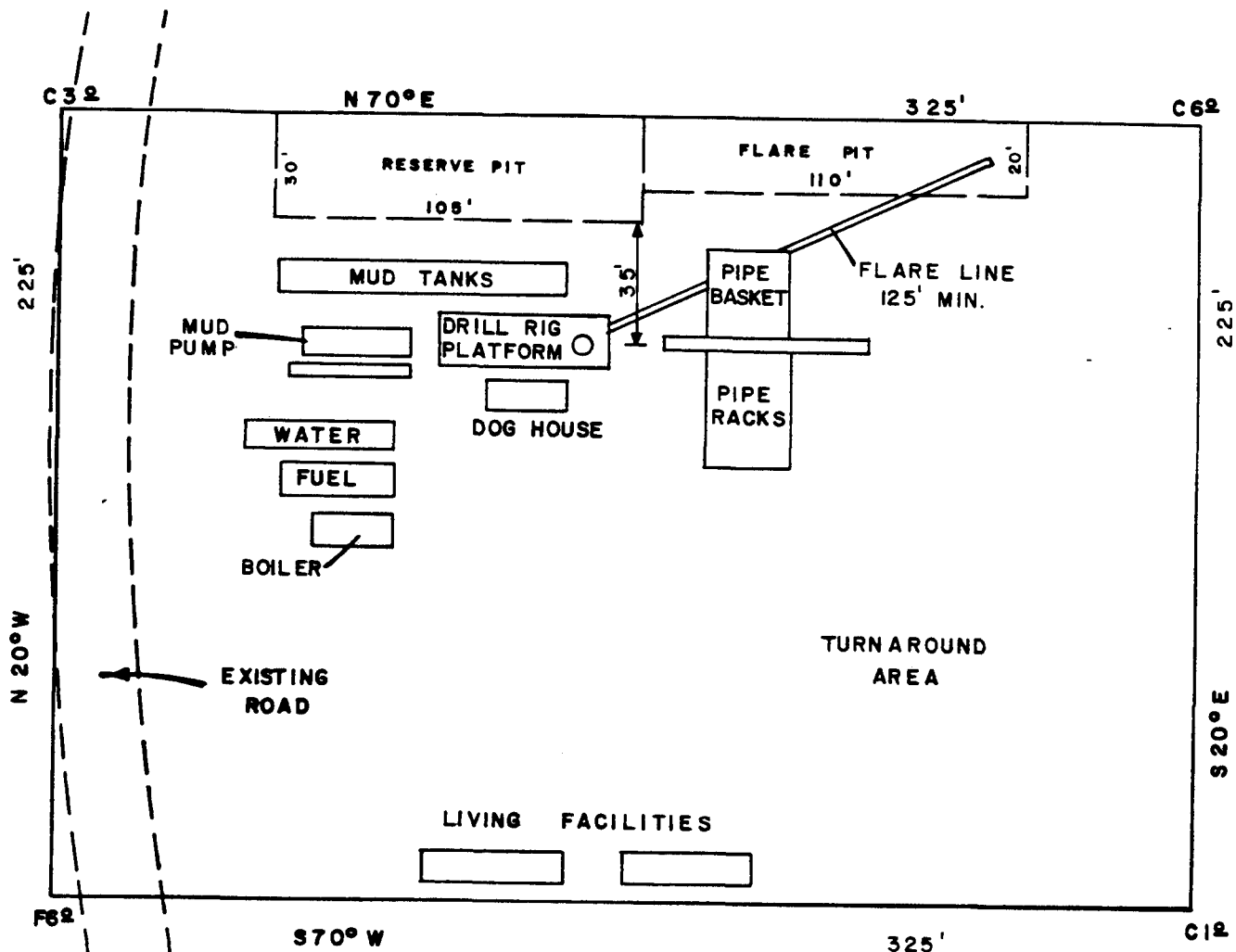
11-24-81

**TENNECO OIL**  
HAYS 1-5

**FIGURE 6**

**JOB NUMBER**  
813692

# RIG LAYOUT



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ENGINEERING • SURVEYING • SOILS AND CONCRETE TESTING  
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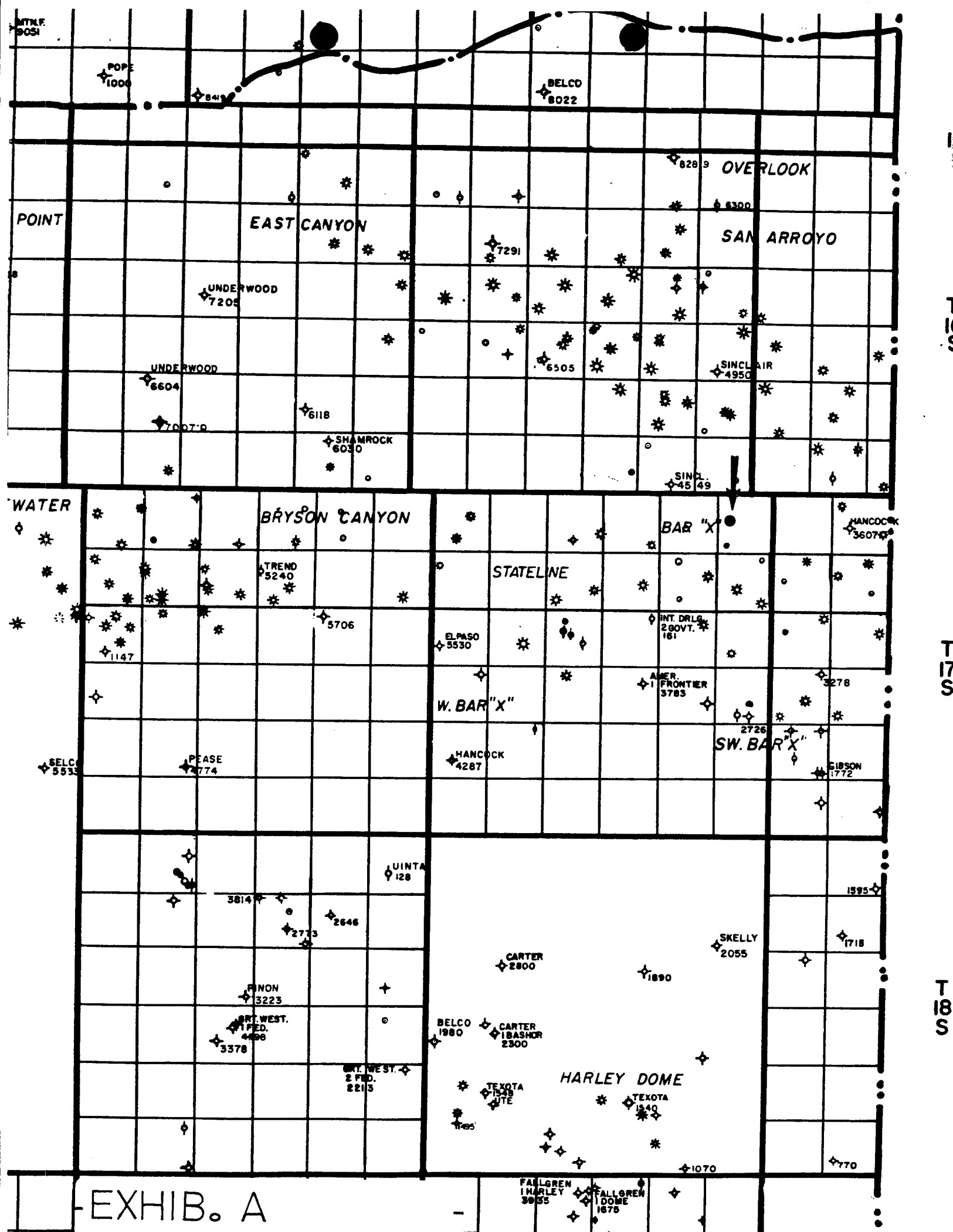
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DATE 12-16-81  
DRAWN BY E.A.G.  
CHECKED BY [Signature]  
DATE OF REVIEW 11-24-81

TENNECO OIL  
HAYS 1 - 5

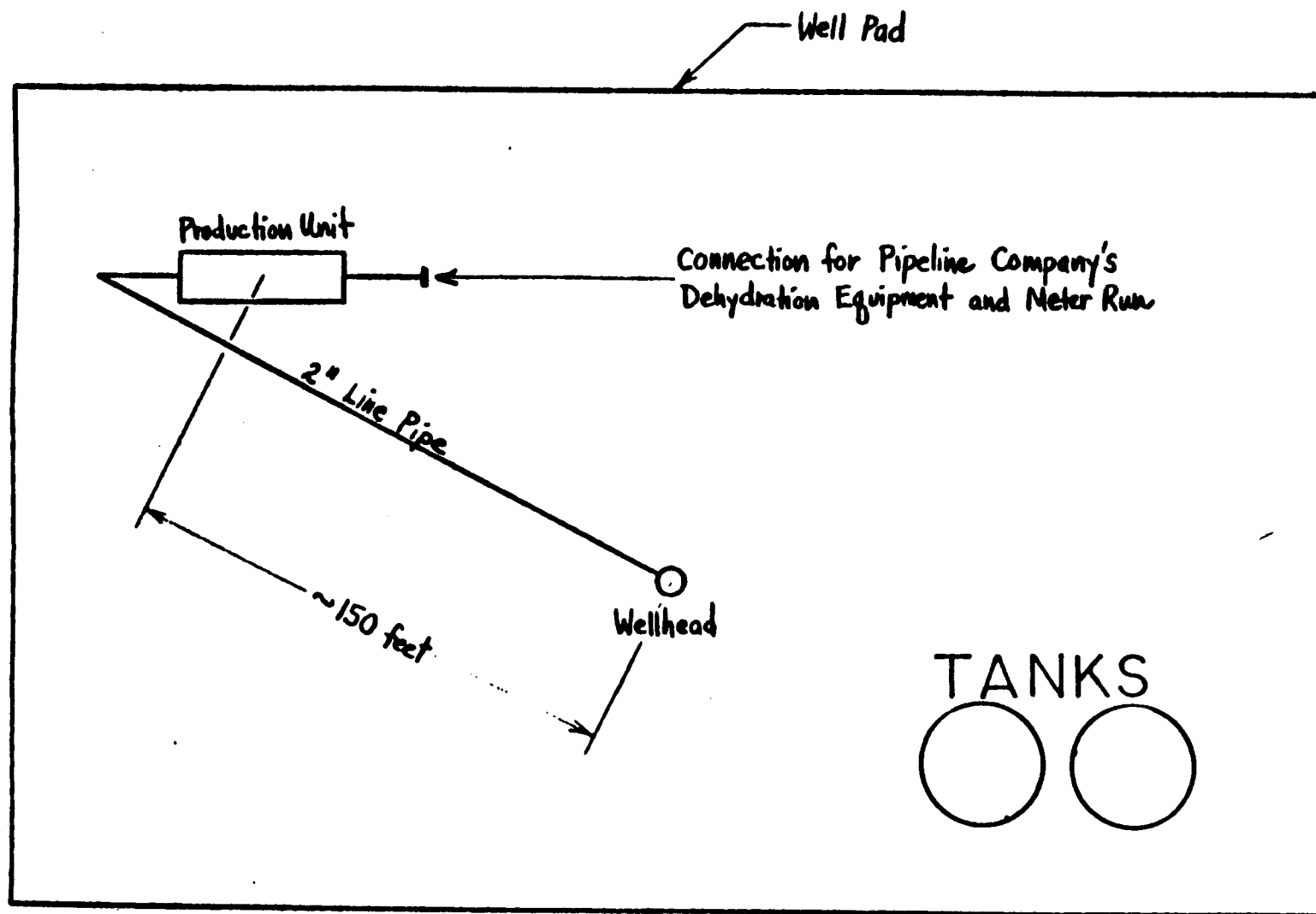
FIGURE 7

JOB NUMBER  
813692





# PROBABLE EQUIPMENT INSTALLATION



EXHIB. B

NOT TO SCALE



STATE OF UTAH  
NATURAL RESOURCES & ENERGY  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Cleon B. Feight, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

June 14, 1982

Tenneco Oil Company  
P. O. Box 3249  
Englewood, Colorado 80155

Attention: Mr. Lee Freeman

RE: Well No. Hays USA #1-5  
Sec. 1, T. 17 S, R. 25 E  
Grand County, Utah  
API No. 43-019-30941

Dear Sir:

Approval of this office to drill the above reference well at an exception location was granted by our letter of April 6, 1982. This approval was granted in accordance with Rule C-3(c), General Rules and Regulations and Rules of Practice and Procedure.

We wish to rescind this previously granted approval and grant approval to drill at the exception location in accordance with the Order issued in Cause No. 4 dated December 5, 1956. This will be the well location for drilling unit No. 4, Zone 1. The previously submitted evidence of topographical and geological constraints for the proposed location will suffice for the requirements of the Order of Cause No. 4.

Sincerely,

DIVISION OF OIL, GAS & MINING

Ronald J. Firth  
Chief Petroleum Engineer

RJF/as

# Tenneco Oil Exploration and Production

A Tenneco Company

Western Rocky Mountain Division

P.O. Box 3249  
Englewood, Colorado 80155  
(303) 740-4800

Delivery Address:  
6061 South Willow Drive  
Englewood, Colorado



July 26, 1982

Minerals Management Service  
2000 Administration Bldg  
1745 West 1700 South  
Salt Lake City, UT 84104

ATTN: Ed Guynn

RE: Tight Hole Status for 1982  
Locations

Dear Ed:

Tenneco hereby requests that your office designate the following wells as "tight Hole", as we consider the information from these wells as proprietary;

Hays USA #1-5

Hays USA #1-2

TOC TXO USA #15-9

TOC TXO POGO USA #15-11

Your cooperation in this matter will be greatly appreciated.

Sincerely yours,

TENNECO OIL COMPANY

A handwritten signature in cursive script that reads "Don H. Morrison".

Don H. Morrison  
Sr. Production Analyst

DHM/dd

cc: ✓ State of Utah - Oil & Gas Conservation

**RECEIVED**

JUL 29 1982

DIVISION OF  
OIL, GAS & MINING

Branch of Fluid Minerals  
2000 Administration Building  
1745 West 1700 South  
Salt Lake City, Utah 84104

July 12, 1983

Tenneco Oil Company  
P. O. Box 3249  
Englewood, Colorado 80155

Re: Rescind Application for Permit  
to Drill  
Well No. Hays 1-5  
Section 1, T. 17 S., R. 25 E.  
Grand County, Utah  
Lease U-25888

Gentlemen:

The Application for Permit to Drill the referenced well was approved on May 21, 1982. Since that date no known activity has transpired at the approved location. Under District policy, applications for permit to drill are effective for a period of one year. In view of the foregoing, this office is rescinding the approval of the referenced application without prejudice. If you intend to drill at this location at a future date, a new application for permit to drill must be submitted.

This office requires a letter confirming that no surface disturbance has been made for this drill site. Any surface disturbance associated with the approved location of the well will be rehabilitated. A schedule for this rehabilitation must then be submitted to this office. Your cooperation in this matter is appreciated.

Sincerely,

(ORIG. SGD.) W. P. MARTENS

*for* E. W. Guynn  
Chief, Branch of Fluid Minerals

bcc: Well File  
SMA  
State O&G ✓  
State BLM  
APD Control

WPM/kr

RECEIVED  
JUL 14 1983

DIVISION OF  
OIL GAS & MINING



STATE OF UTAH  
NATURAL RESOURCES  
Oil, Gas & Mining

Scott M. Matheson, Governor  
Temple A. Reynolds, Executive Director  
Dr. G. A. (Jim) Shirazi, Division Director

4241 State Office Building • Salt Lake City, UT 84114 • 801-533-5771

August 18, 1983

Tenneco Oil Company  
P. O. Box 3249  
Englewood, Colorado 80155

RE: Application for Permit to Drill  
Well No. Hays 1-5  
Sec. 1, T. 17S, R. 25E  
Grand County, Utah

Gentlemen:

Approval of Application for Permit to Drill the above referenced well is rescinded without prejudice as of the above date in concert with action taken by Branch of Fluid Minerals.

If you intend to drill this location at a future date, a new application for permit to drill may be submitted for State approval.

Sincerely,

Norman C. Stout  
Administrative Assistant

NS/as